REMARKS/ARGUMENTS

Claims 1-7 were examined and reported in the Office Action. Claims 1-7 are rejected. Applicant cancels claims 5 and 7 and amends claim 1 to include limitations of claims 5 and 7. Thus, Applicant asserts that no new matter is added in the amendment to claim 1 as it is supported at least by claims 5 and 7, and by pg. 5, line 19 through pg. 6, line 10 of the specification.

Applicant requests reconsideration of the application in view of the following remarks

35 U.S.C. § 102(e)

A.   It is asserted in the Office Action that claims 1-7 are rejected under 35 U.S.C. § 102(e), as being anticipated by U. S. Patent No. 6,400,831 issued to Lee et al. ("Lee"). Applicant respectfully traverses the aforementioned rejection for the following reasons. According to MPEP §2131,

> "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). 'The identical invention must be shown in as complete detail as is contained in the ... claim. (Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. (In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)).

Lee discloses a method of segmenting without knowledge of color, shape or motion (see Lee, column 6, lines 7-10). Lee also teaches a method of forming boundaries for semantic objects identified based on user input. Lee teaches that forming these boundaries only considers color of the object, and position values of the user input (see col., 9, lines 39-42 and 60-65; col. 10, lines 17-19; col. 11, lines 1-5, 12-17; and 33-37). Lee, however, does not teach, disclose or suggest Applicant's amended claim 1 limitations of:

a)   defining and primarily segmenting objects existing in a first frame of a video sequence semi-manually based on spatial information such that, if the user designates manually a rough boundary line of the object within the frame, then the object within the frame is automatically segmented based on the designation-related information, a brightness information of the first frame and a color information of the first frame; and

b)   automatically segmenting the objects defined and segmented the first frame in a second frame within a moving video sequence by performing object-tracking based on movement of the objects defined and segmented in the first frame.

Since Lee does not teach, disclose or suggest all of Applicant's amended claim 1 limitations, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. § 102(e) has not been adequately set forth relative to Lee. Therefore, Applicant's amended claim 1 is not anticipated by Lee. Additionally, the claims that directly or indirectly depend on claim 1, namely claims 2-7, are also not anticipated by Lee for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 102(e) rejections for claims 1-7 is respectfully requested.

B.   It is asserted in the Office Action that claims 1 and 5-7 are rejected under 35 U.S.C. § 102(e), as being anticipated by U. S. Patent No. 5,969,755 issued to Courtney ("Courtney"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

Courtney discloses automatic indexing using a segmentor based on motion. In Courtney, the segmentor uses meta-information including size, shape, position, time-stamp and image and classifies objects as moving or stationary. Specifically, Courtney teaches that motion analyzer 23 analyzes the results of object tracking and annotates the graph motion with indices describing several events, prior to a rule based classification to identify events of interest; prior to storing clips of the video and annotated graphs; and prior to user retrieval of the stored video clips and annotated graphs (see abstract; FIG. 4; FIG. 7; GUI 28 located further in FIG. 5 than motion analyzer 23, recorder 24, and database 15; col. 4, lines 47-54; col. 5, lines 4-24; and col. 6, lines 21-31). Courtney,

however, does not teach, disclose or suggest Applicant's amended claim 1 limitations of:

a)   defining and primarily segmenting objects existing in a first frame of a video sequence semi-manually based on spatial information such that, if the <u>user designates manually a rough boundary line</u> of the object within the frame, <u>then</u> the object within the frame is <u>automatically segmented based on</u> the designation-related information, <u>a brightness information of the first frame</u> and a color information of the first frame; and

b)   automatically segmenting the objects defined and segmented the first frame in a second frame within a moving video sequence by performing object-tracking based on movement of the objects defined and segmented in the first frame.

Since Courtney does not teach, disclose or suggest all of Applicant's amended claim 1 limitations, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. § 102(e) has not been adequately set forth relative to Courtney. Therefore, Applicant's amended claim 1 is not anticipated by Courtney. Additionally, the claims that directly or indirectly depend on claim 1, namely claims 5-7, are also not anticipated by Courtney for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 102(e) rejections for claims 1 and 5-7 is respectfully requested.

C.   It is asserted in the Office Action that claims 1-2 and 4-7 are rejected under 35 U.S.C. § 102(e), as being anticipated by U. S. Patent No. 6,738,100 issued to Hampapur et al. ("Hampapur"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

Hampapur discloses a method of detecting scene changes by extracting chromatic differences from a pair of video frames based on the chromatic differences and a first threshold. Hampapur then extracts a structural difference and uses a second threshold to select key frames. These thresholds are user selectable. Hampapur describes that the second threshold is a determination of the <u>structural difference</u> between two frames <u>based on edge content of images</u> (<u>see</u> col. 7, lines 52-56; and col. 9,

line 2 through col. 14, line 56). However, this is not related to and does not teach, disclose or suggest Applicant's amended claim 1 limitations of:

> a) defining and primarily segmenting objects existing in a first frame of a video sequence semi-manually based on spatial information such that, if the <u>user designates manually a rough boundary line of the object within the frame,</u> <u>then</u> the object within the frame is <u>automatically segmented based on</u> the designation-related information, <u>a brightness information of the first frame</u> and a color information of the first frame; and

> b) automatically segmenting the objects defined and segmented the first frame in a second frame within a moving video sequence by performing object-tracking based on movement of the objects defined and segmented in the first frame.

In addition, the background of Hamapur also describes representing video, such as for accurate retrieval and re-use, based on visual, audio and semantic content, such as to capture the look of the video, its sound, and its meaning (<u>see</u> col. 1, lines 25-37). Such representations can be stored in a database so that a user trying to access video from a collection can query the database to perform content-based search of the video collection to locate a specific video asset of interest (<u>see</u> col. 1, lines 40-44). However, this does not teach, disclose or suggest Applicant's amended claim 1 limitations of:

> a) defining and primarily <u>segmenting objects existing in a first frame of a video sequence semi-manually</u> based on spatial information such that, if the user designates manually a rough boundary line of the object within the frame, <u>then</u> the object within the frame is <u>automatically segmented based on</u> the designation-related information, <u>a brightness information of the first frame</u> and a color information of the first frame; and

> b) automatically segmenting the objects defined and segmented the first frame in a second frame within a moving video sequence by performing object-tracking based on movement of the objects defined and segmented in the first frame.

Since Hampapur does not teach, disclose or suggest all of Applicant's amended claim 1 limitations, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. § 102(e) has not been adequately set forth relative to Hampapur. Therefore,

Applicant's amended claim 1 is not anticipated by Hampapur. Additionally, the claims that directly or indirectly depend on claim 1, namely claims 2 and 4-7, are also not anticipated by Hampapur for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 102(e) rejections for claims 1-2 and 4-7 is respectfully requested.

D. It is asserted in the Office Action that claims 1-7 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,075,875 issued to Gu (Gu). Applicant respectfully traverses the aforementioned rejection for the following reasons.

FIGS. 37A-37F of Gu show successive video image frames of an exemplary video sequence to <u>illustrate various aspects</u> of Gu, where motion boundary 1256 is <u>represented</u> as a white line and spatial boundaries 1258 are represented by line motion boundary 1256 as white lines (<u>see</u> FIGS. 37A-37F and col. 44, lines 32-57). White line motion boundary 1256 is shown in FIGs. 37A-37F to illustrate a distinction between character 1252 and background motion 1254 in FIG. 37B, but does not actually exist in the successive video image frames of FIG. 37A (<u>see</u> FIGS. 37A and 37B and col. 44, lines 34-45). Hence, motion boundary 1256 is only illustratively shown in FIG. 37B, but is not a <u>user's manually designated rough boundary line of an object within a frame</u> as required by amended claim 1.

Similarly, white line spatial boundary 1258 is an illustrative representation in FIG. 37C, but does not exist in the video of FIG. 37A. Hence, the spatial boundaries 1258 of FIG. 37C are only illustrative, but are not a <u>user's manually designated rough boundary line of an object within a frame</u>, as required by claim 1.

Therefore, Gu does not teach, disclose or suggest Applicant's amended claim 1 limitations of:

> a) defining and primarily <u>segmenting objects existing in a first frame of a video sequence semi-manually</u> based on spatial information such that, if the user designates manually a rough boundary line of the object within the frame, <u>then</u> the object within the frame is <u>automatically segmented based on</u> the designation-related information, <u>a brightness information of the first frame</u> and a color information of the first frame; and

b)   automatically segmenting the objects defined and segmented the first frame in a second frame within a moving video sequence by performing object-tracking based on movement of the objects defined and segmented in the first frame.

Since Gu does not teach, disclose or suggest all of Applicant's amended claim 1 limitations, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. § 102(e) has not been adequately set forth relative to Gu. Therefore, Applicant's amended claim 1 is not anticipated by Gu. Additionally, the claims that directly or indirectly depend on claim 1, namely claims 2-7, are also not anticipated by Gu for the same reason.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.
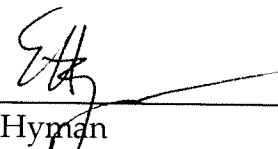
If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,
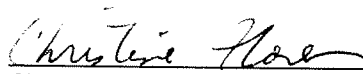
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Dated: _____7/8/08_____

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted to the United States Patent and Trademark Office electronically via EFS Web on the date shown below.

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